

Abstract

The invention relates to a code-tracking method and a rake receiver for CDMA communication systems of low complexity yielding stable tracking. Received signal are distributed to a plurality of receiver fingers of a rake receiver. Each receiver finger  $i$  is assigned to a signal path of the transmitted signal which is subject to phase shift and power dissipation due to reflection, diffraction and scattering. According to the invention in each receiver finger  $i$  an estimation of the timing delay  $\hat{\tau}^{(i)}$  is provided and interference from other signal components  $j$  are subtracted from signal components of the current signal path  $i$  ( $i \neq j$ ) yielding a reliable estimated timing delay  $\hat{\tau}$ .